

Notice of Allowability	Application No.	Applicant(s)	
	10/569,554	FARRUSSENG ET AL.	
	Examiner	Art Unit	
	ALEXANDER POLYANSKY	1735	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to 8/20/2010.
2. ☒ The allowed claim(s) is/are 24-26,31,32 and 34-44.
3. ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) ☒ All b) ☐ Some* c) ☐ None of the:
 1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☒ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

* Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
 - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
 - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
 - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.

Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

- | | |
|---|--|
| <ol style="list-style-type: none"> 1. <input type="checkbox"/> Notice of References Cited (PTO-892) 2. <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) 3. <input type="checkbox"/> Information Disclosure Statements (PTO/SB/08),
Paper No./Mail Date _____ 4. <input type="checkbox"/> Examiner's Comment Regarding Requirement for Deposit
of Biological Material | <ol style="list-style-type: none"> 5. <input type="checkbox"/> Notice of Informal Patent Application 6. <input checked="" type="checkbox"/> Interview Summary (PTO-413),
Paper No./Mail Date _____. 7. <input checked="" type="checkbox"/> Examiner's Amendment/Comment 8. <input checked="" type="checkbox"/> Examiner's Statement of Reasons for Allowance 9. <input type="checkbox"/> Other _____. |
|---|--|

/Alexander Polyansky/
Examiner, Art Unit 1735

/Jessica L. Ward/
Supervisory Patent Examiner, Art Unit 1735

DETAILED ACTION

EXAMINER'S AMENDMENT

An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone interview with Mr. Robert E. Goozner on November 5, 2010.

The Amendments are as follows:

- I. In claim 24, line 5, replace the phrase "based on" with --containing--.
- II. In claim 25, line 2, replace the phrase "based on" with --containing--.
- III. In claim 34, line 2, replace the phrase "based on" with --containing--.
- IV. In claim 35, line 2, replace the phrase "based on" with --containing--.
- V. In claim 38, please replace the preamble, lines 1-3, with the following --A method for preparing the oxygen conducting membrane as defined according to claim 24, comprising--.
- VI. In claim 38, line 6: --the-- should be inserted before "magnesium oxide".
- VII. In claim 39, please replace the preamble, lines 1-3, with the following --A method for preparing the oxygen conducting membrane as defined according to claim 24, comprising--.
- VIII. In claim 38, line 5, replace the phrase "based on" with --containing--.
- IX. In claim 39, line 3, delete "consisting in".

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X. In claim 40, line 3: replace "means of an" with --the--.

XI. In claim 41, lines 3-4, replace the phrase "based on" with --containing--.

XII. Cancel claim 45.

Allowable Subject Matter

The following is an examiner's statement of reasons for allowance:

Claim 24 is allowable over the cited prior art because the cited prior art does not teach or suggest an oxygen conducting membrane comprising an oxygen conducting membrane one surface of which is covered with dispersed particles based on magnesium oxide or noble metals, and wherein these particles represent from 0.01 to 0.1% by weight of the dense membrane.

Rejoinder

Claims 24-26, 31-32, and 34-37 are directed to an allowable product. Pursuant to the procedures set forth in MPEP § 821.04(b), claims 38-39, directed to the process of making or using the allowable product, claims 40-41, drawn to a membrane reactor including the allowable product, and claims 42-44 drawn to a method for oxidizing a reactant gas using the allowable product, previously withdrawn from consideration as a result of a restriction requirement, are hereby rejoined and fully examined for patentability under 37 CFR 1.104.

Because a claimed invention previously withdrawn from consideration under 37 CFR 1.142 has been rejoined, **the restriction requirement between groups I-IV as set forth in the Office action mailed on October 23, 2008 is hereby withdrawn.** In view of the withdrawal of the restriction requirement as to the rejoined inventions, applicant(s) are advised that if any claim presented in a continuation or divisional application is anticipated by, or includes all the

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limitations of, a claim that is allowable in the present application, such claim may be subject to provisional statutory and/or nonstatutory double patenting rejections over the claims of the instant application. Once the restriction requirement is withdrawn, the provisions of 35 U.S.C. 121 are no longer applicable. See *In re Ziegler*, 443 F.2d 1211, 1215, 170 USPQ 129, 131-32 (CCPA 1971). See also MPEP § 804.01.

Status of Previous Rejections

The 35 U.S.C. 103(a) rejection of claim(s) 24-26, 31-32, and 36-37 as being unpatentable over Haile et al. US 2005/0026006 has been withdrawn in view of the applicants' submission of a certified translation of the foreign document FR 03100258 thereby perfecting the filing date to August 28, 2003, which antedates the Haile reference. Therefore, Haile has been withdrawn based on arguments (filed August 20, 2010) found at pages 8-10 of the Remarks, and more, based on the fact that the noble metal of Haile is mixed with the conducting dense membrane during the preparation steps and does not cover one surface of the mixed conducting dense membrane. As discussed in the Remarks at page 9, even if the provisional application No. 60/476,413 to Haile were taken to have an earlier filing date than the instant application, the mixed conducting membrane is nonetheless mixed with noble metals and does not cover one surface with dispersed particles based on magnesium oxide or noble metal, and the particles based on magnesium oxide or noble metal represent from 0.01 to 0.1% by weight of the dense membrane.

Further, Applicants concede that the instant mixed conducting membrane is known (instant spec. page 6 pars. 1, 3, for example), and coating oxygen conducting dense membranes is also known (instant spec. page 6, par. 5, for one); however, the combination of the instantly

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claimed dense membrane, having one surface covered with dispersed particles containing MgO or noble metals representing from 0.01 to 0.1% by weight of the dense membrane is not taught or suggested by the cited prior art.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to ALEXANDER POLYANSKY whose telephone number is (571)270-5904. The examiner can normally be reached on Monday-Friday, 8:00 a.m. EST - 5:00 p.m. EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jessica L. Ward can be reached on 571-272-1223. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Alexander Polyansky/
Examiner, Art Unit 1735

/Jessica L. Ward/
Supervisory Patent Examiner, Art Unit 1735

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